

Release notes for ENDF/B Development electrons sublibrary



March 22, 2016

## FAILURE SUMMARY

No FAILURES found!

## ERROR SUMMARY

**fudge-4.0** Calculated and tabulated thresholds don't agree: e-001\_H\_000.endf, e-002\_He\_000.endf, e-003\_Li\_000.endf, e-004\_Be\_000.endf, e-005\_B\_000.endf, e-006\_C\_000.endf, e-007\_N\_000.endf, e-008\_O\_000.endf, e-009\_F\_000.endf, e-010\_Ne\_000.endf, e-011\_Na\_000.endf, e-012\_Mg\_000.endf, e-013\_Al\_000.endf, e-014\_Si\_000.endf, e-015\_P\_000.endf, e-016\_S\_000.endf, e-017\_Cl\_000.endf, e-018\_Ar\_000.endf, e-019\_K\_000.endf, e-020\_Ca\_000.endf, e-021\_Sc\_000.endf, e-022\_Ti\_000.endf, e-023\_V\_000.endf, e-024\_Cr\_000.endf, e-025\_Mn\_000.endf, e-026\_Fe\_000.endf, e-027\_Co\_000.endf, e-028\_Ni\_000.endf, e-029\_Cu\_000.endf, e-030\_Zn\_000.endf, e-031\_Ga\_000.endf, e-032\_Ge\_000.endf, e-033\_As\_000.endf, e-034\_Se\_000.endf, e-035\_Br\_000.endf, e-036\_Kr\_000.endf, e-037\_Rb\_000.endf, e-038\_Sr\_000.endf, e-039\_Y\_000.endf, e-040\_Zr\_000.endf, e-041\_Nb\_000.endf, e-042\_Mo\_000.endf, e-043\_Tc\_000.endf, e-044\_Ru\_000.endf, e-045\_Rh\_000.endf, e-046\_Pd\_000.endf, e-047\_Ag\_000.endf, e-048\_Cd\_000.endf, e-049\_In\_000.endf, e-050\_Sn\_000.endf, e-051\_Sb\_000.endf, e-052\_Te\_000.endf, e-053\_I\_000.endf, e-054\_Xe\_000.endf, e-055-Cs\_000.endf, e-056\_Ba\_000.endf, e-057\_La\_000.endf, e-058\_Ce\_000.endf, e-059\_Pr\_000.endf, e-060\_Nd\_000.endf, e-061\_Pm\_000.endf, e-062\_Sm\_000.endf, e-063\_Eu\_000.endf, e-064\_Gd\_000.endf, e-065\_Tb\_000.endf, e-066\_Dy\_000.endf, e-067\_Ho\_000.endf, e-068\_Er\_000.endf, e-069\_Tm\_000.endf, e-070\_Yb\_000.endf, e-071\_Lu\_000.endf, e-072\_Hf\_000.endf, e-073-Ta\_000.endf, e-074\_W\_000.endf, e-075\_Re\_000.endf, e-076\_Os\_000.endf, e-077\_Ir\_000.endf, e-078\_Pt\_000.endf, e-079\_Au\_000.endf, e-080\_Hg\_000.endf, e-081\_Tl\_000.endf, e-082\_Pb\_000.endf, e-083\_Bi\_000.endf, e-084\_Po\_000.endf, e-085\_At\_000.endf, e-086\_Rn\_000.endf, e-087\_Fr\_000.endf, e-088\_Ra\_000.endf, e-089\_Ac\_000.endf, e-090\_Th\_000.endf, e-091\_Pa\_000.endf, e-092\_U\_000.endf, e-093\_Np\_000.endf, e-094\_Pu\_000.endf, e-095\_Am\_000.endf, e-096\_Cm\_000.endf, e-097\_Bk\_000.endf, e-098\_Cf\_000.endf, e-099\_Es\_000.endf, e-100\_Fm\_000.endf,

## WARNING SUMMARY

**fudge-4.0** FIXME: Generic fudge unimplemented message: e-001\_H\_000.endf, e-002\_He\_000.endf, e-003\_Li\_000.endf, e-004\_Be\_000.endf, e-005\_B\_000.endf, e-006\_C\_000.endf, e-007\_N\_000.endf, e-008\_O\_000.endf, e-009\_F\_000.endf, e-010\_Ne\_000.endf, e-011\_Na\_000.endf, e-012\_Mg\_000.endf, e-013\_Al\_000.endf, e-014\_Si\_000.endf, e-015\_P\_000.endf, e-016\_S\_000.endf, e-017\_Cl\_000.endf, e-018\_Ar\_000.endf, e-019\_K\_000.endf, e-020\_Ca\_000.endf, e-021\_Sc\_000.endf, e-022\_Ti\_000.endf, e-023\_V\_000.endf, e-024\_Cr\_000.endf, e-025\_Mn\_000.endf, e-026\_Fe\_000.endf, e-027\_Co\_000.endf, e-028\_Ni\_000.endf, e-029\_Cu\_000.endf, e-030\_Zn\_000.endf, e-031\_Ga\_000.endf, e-032\_Ge\_000.endf, e-033\_As\_000.endf, e-034\_Se\_000.endf, e-035\_Br\_000.endf, e-036\_Kr\_000.endf, e-037\_Rb\_000.endf, e-038\_Sr\_000.endf, e-039\_Y\_000.endf, e-040\_Zr\_000.endf, e-041\_Nb\_000.endf, e-042\_Mo\_000.endf, e-043\_Tc\_000.endf, e-044\_Ru\_000.endf, e-045\_Rh\_000.endf, e-046\_Pd\_000.endf, e-047\_Ag\_000.endf, e-048\_Cd\_000.endf, e-049\_In\_000.endf, e-050\_Sn\_000.endf, e-051\_Sb\_000.endf, e-052\_Te\_000.endf, e-053\_I\_000.endf, e-054\_Xe\_000.endf, e-055-Cs\_000.endf, e-056\_Ba\_000.endf, e-057\_La\_000.endf, e-058\_Ce\_000.endf, e-059\_Pr\_000.endf, e-060\_Nd\_000.endf, e-061\_Pm\_000.endf, e-062\_Sm\_000.endf, e-063\_Eu\_000.endf, e-064\_Gd\_000.endf, e-065\_Tb\_000.endf, e-066\_Dy\_000.endf, e-067\_Ho\_000.endf, e-068\_Er\_000.endf, e-069\_Tm\_000.endf, e-070\_Yb\_000.endf, e-071\_Lu\_000.endf, e-072\_Hf\_000.endf, e-073-Ta\_000.endf, e-074\_W\_000.endf, e-075\_Re\_000.endf, e-076\_Os\_000.endf, e-077\_Ir\_000.endf, e-078\_Pt\_000.endf, e-079\_Au\_000.endf, e-080\_Hg\_000.endf, e-081\_Tl\_000.endf, e-082\_Pb\_000.endf, e-083\_Bi\_000.endf, e-084\_Po\_000.endf, e-085\_At\_000.endf, e-086\_Rn\_000.endf, e-087\_Fr\_000.endf, e-088\_Ra\_000.endf, e-089\_Ac\_000.endf, e-090\_Th\_000.endf, e-091\_Pa\_000.endf, e-092\_U\_000.endf, e-093\_Np\_000.endf, e-094\_Pu\_000.endf, e-095\_Am\_000.endf, e-096\_Cm\_000.endf, e-097\_Bk\_000.endf, e-098\_Cf\_000.endf, e-099\_Es\_000.endf, e-100\_Fm\_000.endf,

**fudge-4.0** Mislabled emitted particle: e-001\_H\_000.endf, e-002\_He\_000.endf, e-003\_Li\_000.endf, e-004\_Be\_000.endf, e-005\_B\_000.endf, e-006\_C\_000.endf, e-007\_N\_000.endf, e-008\_O\_000.endf, e-009\_F\_000.endf, e-010\_Ne\_000.endf, e-011\_Na\_000.endf, e-012\_Mg\_000.endf, e-013\_Al\_000.endf, e-014\_Si\_000.endf, e-015\_P\_000.endf, e-016\_S\_000.endf, e-017\_Cl\_000.endf, e-018\_Ar\_000.endf, e-019\_K\_000.endf, e-020\_Ca\_000.endf, e-021\_Sc\_000.endf, e-022\_Ti\_000.endf, e-023\_V\_000.endf, e-024\_Cr\_000.endf, e-025\_Mn\_000.endf, e-026\_Fe\_000.endf, e-027\_Co\_000.endf, e-028\_Ni\_000.endf, e-029\_Cu\_000.endf, e-030\_Zn\_000.endf, e-031\_Ga\_000.endf, e-032\_Ge\_000.endf, e-033\_As\_000.endf, e-034\_Se\_000.endf, e-035\_Br\_000.endf, e-036\_Kr\_000.endf, e-037\_Rb\_000.endf, e-038\_Sr\_000.endf, e-039\_Y\_000.endf, e-040\_Zr\_000.endf, e-041\_Nb\_000.endf, e-042\_Mo\_000.endf, e-043\_Tc\_000.endf, e-044\_Ru\_000.endf, e-045\_Rh\_000.endf, e-046\_Pd\_000.endf, e-047\_Ag\_000.endf, e-048\_Cd\_000.endf, e-049\_In\_000.endf, e-050\_Sn\_000.endf, e-051\_Sb\_000.endf, e-052\_Te\_000.endf, e-053\_I\_000.endf, e-054\_Xe\_000.endf, e-055-Cs\_000.endf, e-056\_Ba\_000.endf, e-057\_La\_000.endf, e-058\_Ce\_000.endf, e-059\_Pr\_000.endf, e-060\_Nd\_000.endf, e-061\_Pm\_000.endf, e-062\_Sm\_000.endf, e-063\_Eu\_000.endf, e-064\_Gd\_000.endf, e-065\_Tb\_000.endf, e-066\_Dy\_000.endf, e-067\_Ho\_000.endf, e-068\_Er\_000.endf, e-069\_Tm\_000.endf, e-070\_Yb\_000.endf, e-071\_Lu\_000.endf, e-072\_Hf\_000.endf, e-073-Ta\_000.endf, e-074\_W\_000.endf, e-075\_Re\_000.endf, e-076\_Os\_000.endf, e-077\_Ir\_000.endf, e-078\_Pt\_000.endf, e-079\_Au\_000.endf, e-080\_Hg\_000.endf, e-081\_Tl\_000.endf, e-082\_Pb\_000.endf, e-083\_Bi\_000.endf, e-084\_Po\_000.endf, e-085\_At\_000.endf, e-086\_Rn\_000.endf, e-087\_Fr\_000.endf, e-088\_Ra\_000.endf, e-089\_Ac\_000.endf, e-090\_Th\_000.endf, e-091\_Pa\_000.endf, e-092\_U\_000.endf, e-093\_Np\_000.endf, e-094\_Pu\_000.endf, e-095\_Am\_000.endf, e-096\_Cm\_000.endf, e-097\_Bk\_000.endf, e-098\_Cf\_000.endf, e-099\_Es\_000.endf, e-100\_Fm\_000.endf,

**xsectplotter** Mislabled emitted particle: e-001\_H\_000.endf, e-002\_He\_000.endf, e-003\_Li\_000.endf, e-004\_Be\_000.endf, e-005\_B\_000.endf, e-006\_C\_000.endf, e-007\_N\_000.endf, e-008\_O\_000.endf, e-009\_F\_000.endf, e-010\_Ne\_000.endf, e-011\_Na\_000.endf, e-012\_Mg\_000.endf, e-013\_Al\_000.endf, e-014\_Si\_000.endf, e-015\_P\_000.endf, e-016\_S\_000.endf, e-017\_Cl\_000.endf, e-018\_Ar\_000.endf, e-019\_K\_000.endf, e-020\_Ca\_000.endf, e-021\_Sc\_000.endf, e-022\_Ti\_000.endf, e-023\_V\_000.endf, e-024\_Cr\_000.endf, e-025\_Mn\_000.endf, e-026\_Fe\_000.endf, e-027\_Co\_000.endf, e-028\_Ni\_000.endf, e-029\_Cu\_000.endf, e-030\_Zn\_000.endf, e-031\_Ga\_000.endf, e-032\_Ge\_000.endf, e-033\_As\_000.endf, e-034\_Se\_000.endf, e-035\_Br\_000.endf, e-036\_Kr\_000.endf, e-037\_Rb\_000.endf, e-038\_Sr\_000.endf, e-039\_Y\_000.endf, e-040\_Zr\_000.endf, e-041\_Nb\_000.endf, e-042\_Mo\_000.endf, e-043\_Tc\_000.endf, e-044\_Ru\_000.endf, e-045\_Rh\_000.endf, e-046\_Pd\_000.endf, e-047\_Ag\_000.endf, e-048\_Cd\_000.endf, e-049\_In\_000.endf, e-050\_Sn\_000.endf, e-051\_Sb\_000.endf, e-052\_Te\_000.endf, e-053\_I\_000.endf, e-054\_Xe\_000.endf, e-055-Cs\_000.endf, e-056\_Ba\_000.endf, e-057\_La\_000.endf, e-058\_Ce\_000.endf, e-059\_Pr\_000.endf, e-060\_Nd\_000.endf, e-061\_Pm\_000.endf, e-062\_Sm\_000.endf, e-063\_Eu\_000.endf, e-064\_Gd\_000.endf, e-065\_Tb\_000.endf, e-066\_Dy\_000.endf, e-067\_Ho\_000.endf, e-068\_Er\_000.endf, e-069\_Tm\_000.endf, e-070\_Yb\_000.endf, e-071\_Lu\_000.endf, e-072\_Hf\_000.endf, e-073-Ta\_000.endf, e-074\_W\_000.endf, e-075\_Re\_000.endf, e-076\_Os\_000.endf, e-077\_Ir\_000.endf, e-078\_Pt\_000.endf, e-079\_Au\_000.endf, e-080\_Hg\_000.endf, e-081\_Tl\_000.endf, e-082\_Pb\_000.endf, e-083\_Bi\_000.endf, e-084\_Po\_000.endf, e-085\_At\_000.endf, e-086\_Rn\_000.endf, e-087\_Fr\_000.endf, e-088\_Ra\_000.endf, e-089\_Ac\_000.endf, e-090\_Th\_000.endf, e-091\_Pa\_000.endf, e-092\_U\_000.endf, e-093\_Np\_000.endf, e-094\_Pu\_000.endf, e-095\_Am\_000.endf, e-096\_Cm\_000.endf, e-097\_Bk\_000.endf, e-098\_Cf\_000.endf, e-099\_Es\_000.endf, e-100\_Fm\_000.endf,

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-001\_H\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + H + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + H [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + H [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + H + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + H [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.61 eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + H1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.61 eV!

- xssectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*  
  
stderr while processing crossSection  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-002\_He\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + He + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + He [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + He [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + He + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + He [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.42 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + He1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.42 eV!

- xsctplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-003\_Li\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-003-Li-000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Li + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Li [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Li [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Li + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Li [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Li1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.85 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Li2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.5 eV!

• xssectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*  
  
stderr while processing crossSection  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle

*Reading ENDF file: ../e-004\_Be\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Be + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Be [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Be [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Be + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Be [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Be1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 118.36 eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Be2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.18 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle

*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-005\_B\_000.endf

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• fudge-4.0 Warnings:

1. Mislabelled emitted particle

*Reading ENDF file: ../e-005\_B\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + B + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + B [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + B [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + B + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + B [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + B1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 195.61 eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + B2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.58 eV!



6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + B2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.67 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + B2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.66 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-006\_C\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-006\_C\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + C + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + C [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + C [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + C + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + C [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + C1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 291.01 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + C2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.56 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + C2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.99 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + C2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.98 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

---

e-007\_N\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-007\_N\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + N + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + N [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + N [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + N + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + N [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.48 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + N1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 404.85 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + N2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.1 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + N2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.5 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + N2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.48 eV!

- xssectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-008\_0\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-008\_O\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + O + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + O [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + O [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + O + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + O [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.15 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + O1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 537.28 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + O2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.23 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + O2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.19 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + O2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.15 eV!

- xssectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-009\_F\_000.endf

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• fudge-4.0 Warnings:

1. Mislabelled emitted particle

*Reading ENDF file: ../e-009\_F\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + F + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + F [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + F [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + F + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + F [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.98 eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + F1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 688.37 eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + F2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35.93 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + F2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.05 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + F2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.98 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-010\_Ne\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-010\_Ne\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ne + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ne [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ne [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ne + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ne [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19.96 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ne1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 858.1799999999999 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ne2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 43.23 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ne2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.08 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ne2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19.96 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-011\_Na\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-011\_Na\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Na + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Na [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Na [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Na + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Na [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Na1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1064. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Na2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 64.48 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Na2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.42 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Na2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.22 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Na3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.15 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-012\_Mg\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-012\_Mg\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Mg + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Mg [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Mg [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Mg + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Mg [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Mg1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1294.5 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Mg2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 89.45999999999999 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Mg2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.55 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Mg2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.24 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Mg3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.89 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-013\_Al\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-013\_Al\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Al + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Al [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Al [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Al + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Al [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Al1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1549.9 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Al2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 119.05 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Al2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 81.2 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Al2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 80.73 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Al3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.16 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Al3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.88 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Al3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.87 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-014\_Si\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-014\_Si\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Si$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Si$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Si$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Si$  + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Si$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Si1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1828.5 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Si2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 151.55 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Si2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 108.67 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Si2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 107.98 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Si3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.63 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Si3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.55 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Si3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.52 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-015\_P\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-015\_P\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + P + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + P [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + P [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + P + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + P [excitation]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + P1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2130.4 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + P2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 187.15 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + P2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 139.14 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + P2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 138.18 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + P3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.21 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + P3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.380000000000001 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + P3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.33 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-016\_S\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-016-S-000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + S + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + S [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + S [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + S + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + S [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.25 eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + S1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2455.9 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + S2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 225.97 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + S2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 172.73 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + S2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 171.4 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + S3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.95 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + S3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.34 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + S3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.25 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-017\_Cl\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-017\_Cl\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Cl + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Cl [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Cl [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!



2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Cl + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Cl [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.29 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Cl1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2804.9 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Cl2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 268.05 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cl2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 209.48 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cl2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 207.7 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cl3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.84 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cl3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.42 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Cl3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.29 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-018\_Ar\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ar + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ar [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ar [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ar + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ar [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.43 eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ar1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3177.6 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ar2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 313.43 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ar2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 249.43 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ar2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 247.09 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Ar}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.92 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Ar}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.62 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Ar}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.43 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-019\_K\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-019\_K\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + K + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + K [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + K [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + K + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + K [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + K1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3583.3 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + K2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 371.16 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + K2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 301.65 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + K2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 298.64 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + K3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40.5 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + K3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.75 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + K3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.47 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + K4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.22 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-020\_Ca\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-020\_Ca\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Ca + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Ca [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Ca [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Ca + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Ca [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Ca1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4015. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Ca2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 434.11 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ca2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 359.04 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ca2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 355.2 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ca3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.16 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ca3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.01 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ca3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.6 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ca4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.45 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-021\_Sc\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-021\_Sc\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Sc + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Sc [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Sc [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Sc + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Sc [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Sc1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4465.8 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Sc2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 494.29 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Sc2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 413.68 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Sc2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 408.86 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Sc3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.91 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Sc3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 39.6 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Sc3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 39.06 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Sc3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.08 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Sc3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.04 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Sc4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.9 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-022\_Ti\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-022\_Ti\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ti + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ti [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ti [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!



2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ti + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ti$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ti1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4940.6 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ti2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 557.4400000000001 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ti2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 471.22 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ti2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 465.24 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ti3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.61 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ti3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.1 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ti3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 44.42 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ti3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.390000000000001 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ti3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.34 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ti4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.28 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-023\_V\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-023\_V\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + V + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + V [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + V [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + V + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + V [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + V1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5439.6 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + V2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 623.79 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + V2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 531.88 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + V2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 524.54 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + V3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 76.42 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + V3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.65 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + V3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.79 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + V3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.609999999999999 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + V3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.529999999999999 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + V4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.63 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-024\_Cr\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabelled emitted particle

*Reading ENDF file: ../e-024\_Cr\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Cr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Cr [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Cr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Cr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Cr [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Cr1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5957.6 eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Cr2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 687.34 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cr2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 589.74 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cr2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 580.8099999999999 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cr3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 79.19 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cr3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 51.25 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Cr3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.2 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Cr3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.46 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Cr3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.37 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Cr4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.96 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-025\_Mn\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-025-Mn-000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Mn + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Mn [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Mn [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Mn + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Mn [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Mn1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6510.9 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Mn2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 766.47 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Mn2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 662.97 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Mn2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 652.22 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Mn3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 92.58 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Mn3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 62.09 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Mn3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.78 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Mn3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.85 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Mn3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.72 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Mn4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.25 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-026\_Fe\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-026\_Fe\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Fe + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Fe [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Fe [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Fe + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Fe [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Fe1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7083.4 eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Fe2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 842.96 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Fe2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 733.55 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Fe2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 720.6900000000001 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Fe3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 101.01 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Fe3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.04000000000001 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Fe3p3/2 / Cross section: (Error # 0): Threshold mismatch*



WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 66.45 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Fe3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.91 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Fe3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.74 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Fe4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.53 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-027\_Co\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-027\_Co\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Co + gamma [bremsstrahlung]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Co [excitation]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Co [large\ angle\ Coulomb\ scattering]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Co + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Co$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Co1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7680.7 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Co2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 922.95 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Co2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 807.54 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Co2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 792.29 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Co3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 109.69 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Co3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 74.17 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Co3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 72.26000000000001 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Co3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.93 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Co3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.72 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Co_{4s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.81 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-028\_Ni\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-028\_Ni\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ni + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ni$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ni$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ni + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ni$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ni1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8302.799999999999 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ni2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1006.5 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ni2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 884.98 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ni2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 867.02 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ni3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 118.64 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ni3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 80.48 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ni3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78.20999999999999 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ni3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.92 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ni3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.66 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ni4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.09 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-029\_Cu\_000.endf

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• fudge-4.0 Warnings:

1. Mislabelled emitted particle

*Reading ENDF file: ../e-029\_Cu\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Cu + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Cu [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Cu [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Cu + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Cu [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Cu1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8943.200000000001 eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Cu2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1086.1 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + \text{Cu}2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 958.53 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + \text{Cu}2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 937.49 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Cu}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 121.26 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Cu}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 80.5 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Cu}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 77.86 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Cu}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.09 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Cu}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.800000000000001 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Cu}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.11 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-030\_Zn\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-030-Zn-000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Zn + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Zn [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Zn [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Zn + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Zn [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Zn1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9622.4 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Zn2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1184.4 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Zn2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1050.5 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Zn2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1026. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Zn}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 137.43 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Zn}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 93.73999999999999 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Zn}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 90.59 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Zn}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.85 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Zn}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.46 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Zn}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.609999999999999 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-031\_Ga\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-031\_Ga\_000.endf (Error # 0): ZAP messed up*
- WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Ga} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data



3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ga [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ga [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ga + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ga [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ga1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10331. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ga2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1290.7 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ga2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1150.4 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ga2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1122. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Ga3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 157.75 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Ga3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 111.01 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Ga3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 107.28 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ga3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.37 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ga3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26.87 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ga4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.69 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ga4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5. eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ga4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.88 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-032\_Ge\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-032\_Ge\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ge + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ge [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ge [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ge + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ge [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ge1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11067. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ge2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1402.3 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ge2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1255.4 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ge2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1222.8 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Ge3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 179.25 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Ge3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 129.38 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Ge3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 124.98 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ge3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.82 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ge3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.19 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ge4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.78 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ge4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.5 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ge4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.29 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-033\_As\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-033\_As\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + As + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + As [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + As [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + As + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + As [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + As1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11829. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + As2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1519.2 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + As2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1365.7 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + As2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1328.3 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + As3s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 202.02 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + As3p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 148.95 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + As3p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 143.78 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10: e- + e- + As3d3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 51.32 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + As3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.55 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + As4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.86 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + As4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.119999999999999 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + As4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.81 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-034\_Se\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-034\_Se\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Se + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Se [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Se$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Se + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Se$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Se1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12619. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Se2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1641.5 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Se2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1481.2 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Se2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1438.6 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Se3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 226.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Se3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 169.77 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Se3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 163.71 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Se3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 64.91 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Se3d5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.97 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Se4s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.99 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Se4p1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.82 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Se4p3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.4 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-035\_Br\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-035\_Br\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Br} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Br [excitation]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + \text{Br [large angle Coulomb scattering]}$  / Cross section: (Error # 0): Threshold mismatch*



WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Br + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Br$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.03 eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Br1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13435. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Br2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1769.2 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Br2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1602.1 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Br2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1553.6 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Br3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 251.49 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Br3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 191.82 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Br3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 184.78 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Br3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 79.59 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Br3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78.45 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Br4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.18 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Br4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.59 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Br4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.03 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-036\_Kr\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-036\_Kr\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Kr + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Kr [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Kr [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Kr + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Kr$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.72 eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Kr1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14280. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Kr2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1902.3 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Kr2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1728.3 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Kr2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1673.4 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Kr3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 278.17 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Kr3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 215.12 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Kr3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 206.96 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Kr3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 95.34999999999999 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Kr3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 93.98 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Kr}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.44 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Kr}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.43 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Kr}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.72 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-037\_Rb\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-037\_Rb\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Rb} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Rb [excitation]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + \text{Rb [large angle Coulomb scattering]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Rb + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Rb$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Rb1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15159. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Rb2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2048. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Rb2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1867.1 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Rb2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1805.1 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Rb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 313.18 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Rb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 246.69 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Rb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 237.29 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Rb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 119.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Rb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 117.57 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Rb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.72 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Rb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.73 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Rb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19.75 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Rb5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.02 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-038\_Sr\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-038\_Sr\_000.endf (Error # 0): ZAP messed up*
- WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Sr + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Sr [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Sr [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Sr + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Sr [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Sr1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16067. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Sr2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2200.1 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Sr2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2012.1 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Sr2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1942.4 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Sr3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 350.32 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Sr3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 280.32 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Sr3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 269.53 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Sr3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 144.93 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Sr3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 143.01 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Sr4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46.39 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Sr4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.47 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Sr4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.2 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Sr5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.1 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-039\_Y\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-039\_Y\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Y + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Y [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:



1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Y$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Y + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Y$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Y1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1.7e4 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Y2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2354.9 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Y2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2159.7 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Y2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2081.5 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Y3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 385.79 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Y3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 312.26 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Y3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 299.92 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Y3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 168.74 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Y3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 166.51 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Y4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.35 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Y4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.71 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Y4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.14 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Y4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.24 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Y4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.13 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Y5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.68 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-040\_Zr\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-040\_Zr\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Zr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Zr [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Zr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Zr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Zr [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Zr1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17962. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Zr2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2514.6 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Zr2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2312.2 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Zr2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2224.8 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Zr3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 422.06 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Zr}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 344.93 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Zr}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 330.88 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Zr}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 193.09 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Zr}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 190.49 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Zr}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.96 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Zr}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.63 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Zr}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.74 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Zr}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.67 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Zr}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.52 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Zr}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.12 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

---

e-041\_Nb\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-041-Nb-000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Nb + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Nb [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Nb [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Nb + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Nb [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Nb1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18948. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Nb2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2676.3 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Nb2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2466.6 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Nb2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2369.1 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Nb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 455.98 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Nb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 375.22 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Nb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 359.28 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Nb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 214.82 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Nb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 211.81 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Nb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.45 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Nb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40.58 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Nb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.36 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Nb4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.94 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Nb_4d_{5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.76 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Nb_{5s_{1/2}}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.73 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-042\_Mo\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-042\_Mo\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Mo + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Mo$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Mo$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Mo + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Mo [excitation]$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Mo1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19965. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Mo2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2846.5 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Mo2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2629.5 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Mo2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2521. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Mo3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 494.09 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Mo3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 409.64 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Mo3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 391.63 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Mo3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 240.45 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Mo3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 237. eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Mo4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 69.63 eV!



14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Mo4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.07 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Mo4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 42.46 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Mo4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7. eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Mo4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.77 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Mo5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.97 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-043\_Tc\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-043\_Tc\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Tc + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Tc$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Tc$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Tc + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Tc$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Tc1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21012. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Tc2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3022.4 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Tc2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2797.9 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Tc2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2677.6 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Tc3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 533.42 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Tc3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 445.24 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Tc3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 424.95 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Tc3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 267.01 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Tc3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 263.07 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Tc4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 75.84999999999999 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Tc4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.6 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Tc4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46.55 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Tc4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.07 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Tc4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.78 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Tc5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.19 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

---

e-044\_Ru\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-044\_Ru\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ru + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ru [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ru [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ru + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ru [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ru1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22087. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ru2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3203.9 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ru2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2971.8 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ru2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2838.7 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ru3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 574.03 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ru3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 482.06 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ru3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 459.29 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ru3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 294.53 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ru3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 290.05 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ru4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 82.14 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ru4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 54.19 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ru4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.66 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ru4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.15 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ru4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.789999999999999 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ru5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.38 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

---

e-045\_Rh\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-045\_Rh\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Rh + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Rh [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Rh [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Rh + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Rh [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Rh1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23191. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Rh2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3391.2 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Rh2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3151.5 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Rh2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3004.5 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Rh3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 615.95 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Rh3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 520.15 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Rh3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 494.66 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Rh3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 323.03 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Rh3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 317.96 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Rh4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 88.52 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Rh4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 58.84 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Rh4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 54.78 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Rh4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.24 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Rh4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.81 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Rh5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.56 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-046\_Pd\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-046\_Pd\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Pd + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Pd [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Pd [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Pd + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!



3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Pd [excitation]$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Pd1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24321. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Pd2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3580. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Pd2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3332.6 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Pd2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3170.6 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pd3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 654.9400000000001 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pd3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 555.25 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pd3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 526.8 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pd3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 348.24 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pd3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 342.51 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Pd4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 91.01000000000001 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Pd4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.68 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Pd4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55.09 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Pd4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.140000000000001 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Pd4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.67 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-047\_Ag\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-047\_Ag\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ag + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ag$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ag$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ag + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ag$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ag1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25489. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ag2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3783.4 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ag2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3528.1 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ag2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3350. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ag3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 703.8 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ag3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 600.1900000000001 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ag3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 568.53 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ag3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 382.99 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ag3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 376.55 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ag4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 101.61 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ag4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.41 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ag4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.14 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ag4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.47 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ag4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.86 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ag5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.89 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-048\_Cd\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-048\_Cd\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Cd + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Cd$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Cd$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Cd + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Cd$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Cd1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26688. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Cd2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3994.1 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cd2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3730.9 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cd2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3535.4 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cd3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 755.37 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cd3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 647.79 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Cd}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 612.63 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Cd}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 420.06 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Cd}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 412.86 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Cd}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 113.36 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Cd}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78.22 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Cd}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 72.19 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Cd}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.71 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Cd}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.97 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Cd}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.220000000000001 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-049\_In\_000.endf (Error # 0): ZAP messed up*  
  
 WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + In + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
 WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + In [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
 WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + In [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + In + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + In [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + In1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27921. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + In2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4213.8 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + In2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
 WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3942.5 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + In2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3728.4 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{In}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 811.24 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{In}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 699.62 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{In}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 660.67 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{In}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 461.04 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{In}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 453. eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{In}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 127.9 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{In}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 90.77 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{In}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 83.87 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{In}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.49 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{In}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.58 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{In}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.83 eV!



19. Calculated and tabulated thresholds don't agree  
*reaction label 18: e- + e- + In5p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.91 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19: e- + e- + In5p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.58 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-050\_Sn\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-050\_Sn\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Sn + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Sn [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Sn [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Sn + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Sn [excitation]$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Sn1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29184. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Sn2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4440.3 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Sn2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4160.8 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Sn2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3926.8 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Sn3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 869.05 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Sn3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 753.36 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Sn3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 710.3200000000001 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Sn3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 503.57 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Sn3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 494.62 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Sn4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.81 eV!

14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Sn}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 103.64 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Sn}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 95.8 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Sn}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.49 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Sn}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.39 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Sn}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.39 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Sn}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.28 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Sn}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.77 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-051\_Sb\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-051\_Sb\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Sb + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Sb$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Sb$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Sb + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Sb$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Sb1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30479. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Sb2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4673.7 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Sb2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4386. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Sb2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4130.5 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Sb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 928.98 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Sb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 809.16 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Sb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 761.6900000000001 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Sb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 547.79 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Sb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 537.85 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Sb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 158.27 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Sb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 117.02 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Sb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 108.12 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Sb4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.87 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Sb4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40.56 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Sb5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15.92 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Sb5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.73 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Sb5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.02 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-052\_Te\_000.endf

---

• **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-052\_Te\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Te + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Te$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Te$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Te + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Te$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Te1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 31805. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Te2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4914.2 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Te2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4618.2 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Te2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4339.7 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Te3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 991.08 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Te3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 867.09 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Te3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 814.85 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Te3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 593.74 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Te3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 582.74 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Te4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 174.33 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Te4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 130.97 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Te4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 120.92 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Te4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.71 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Te4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.18 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Te5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18.45 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Te5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.23 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Te5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.31 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-053\_I\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-053\_I\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + I + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data



3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + I [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + I [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + I + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + I [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + I1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33164. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + I2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5161.9 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + I2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4857.5 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + I2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4554.5 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + I3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1055.4 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + I3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 927.2 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + I3p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 869.8099999999999 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + I3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 641.46 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + I3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 629.3099999999999 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + I4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 191.04 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + I4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 145.53 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + I4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 134.21 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + I4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.04 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + I4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 58.26 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + I5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21.01 eV!

  19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + I5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.77 eV!

  20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + I5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.630000000000001 eV!

• **xsectplotter** Warnings:

1. Misabled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [2 more lines]

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e-054\_Xe\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabeled emitted particle

*Reading ENDF file: ../e-054\_Xe\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Xe + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Xe [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Xe [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Xe + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Xe [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.96 eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Xe1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34556. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Xe2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5416.9 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Xe2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5103.9 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Xe2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4774.7 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Xe3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1122. eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Xe3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 989.47 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Xe3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 926.5599999999999 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Xe3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 690.91 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Xe3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 677.52 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Xe4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 208.37 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Xe4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 160.69 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Xe4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 147.98 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Xe4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 69.84 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Xe}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 67.78 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Xe}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.61 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Xe}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.35 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Xe}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.96 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [2 more lines]

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e-055\_Cs\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-055\_Cs\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Cs} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Cs [excitation]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + \text{Cs [large angle Coulomb scattering]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Cs + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Cs$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Cs1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35985. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Cs2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5684.9 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cs2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5363.2 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cs2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5006.1 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cs3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1196.4 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cs3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1059.5 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Cs3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 990.6799999999999 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Cs3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 747.7 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Cs3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 732.98 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Cs4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 231.86 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Cs4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 181.97 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Cs4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 167.76 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Cs4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 85.61 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Cs4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 83.23999999999999 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Cs5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30.97 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Cs5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18.27 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Cs5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.43 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Cs6s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3.69 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-056\_Ba\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ba + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ba [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ba [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ba + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ba [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ba1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 37449. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ba2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5960.8 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ba2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5630.3 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ba2p3/2 / Cross section: (Error # 0): Threshold mismatch*



- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5243.4 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ba3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1273.4 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ba3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1132.2 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ba3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1057. eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ba3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 806.64 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ba3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 790.49 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ba4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 256.35 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ba4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 204.21 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ba4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 188.35 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ba4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 102.16 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ba4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 99.45999999999999 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ba5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.39 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ba5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.3 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ba5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22. eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ba6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.64 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-057\_La\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-057\_La\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + La + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + La [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + La [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + La + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + La$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + La1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38943. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + La2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6241.8 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + La2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5902.5 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + La2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5483.8 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + La3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1350.4 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + La3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1204.8 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + La3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1122.7 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + La3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 864.96 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + La3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 847.28 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + La4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 279.13 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + La4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 224.73 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + La4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 207.07 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + La4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 116.83 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + La4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 113.76 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + La5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 43.65 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + La5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.33 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + La5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.59 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + La5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.58 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + La5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.34 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + La6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.14 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

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e-058\_Ce\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-058\_Ce\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ce + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ce [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ce [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ce + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ce [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ce1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40456. eV!
```

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ce2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6513.3 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ce2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6165.3 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ce2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5712.8 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ce3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1409.9 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ce3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1259.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ce3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1170.5 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ce3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 905.49 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ce3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 886.14 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ce4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 285.01 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ce4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 228.58 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ce4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 209.35 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ce4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 115.79 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ce4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 112.44 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ce4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.85 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ce4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.51 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ce5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.75 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ce5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26.35 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ce5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.59 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ce6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.81 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-059\_Pr\_000.endf

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-059\_Pr\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Pr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Pr [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Pr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Pr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Pr [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Pr1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 42010. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Pr2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6799.8 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Pr2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6442.9 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Pr2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5954.4 eV!



8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Pr}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1480.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Pr}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1325.7 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Pr}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1228.4 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Pr}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 955.98 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Pr}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 934.86 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Pr}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 299.25 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Pr}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 240.64 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Pr}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 219.56 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Pr}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 122.28 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Pr}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 118.59 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Pr}4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.65 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Pr}4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.24 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Pr}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 43.3 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + \text{Pr}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.26 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + \text{Pr}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.26 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + \text{Pr}6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.89 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-060\_Nd\_000.endf

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• **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-060\_Nd\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Nd} + \text{gamma}$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Nd}$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Nd$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Nd + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Nd$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Nd1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 43597. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Nd2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7093.3 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Nd2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6727.4 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Nd2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6200.7 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Nd3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1551.8 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Nd3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1392.8 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Nd3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1287.1 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Nd3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1007.3 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Nd3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 984.3200000000001 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Nd4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 313.58 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Nd4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 252.76 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Nd4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 229.72 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Nd4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 128.68 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Nd4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 124.62 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Nd4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.32 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Nd4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.85 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Nd5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 44.8 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Nd5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.12 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Nd5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.88 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Nd6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.96 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-061\_Pm\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-061\_Pm\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Pm + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Pm$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Pm$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Pm + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Pm$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Pm1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45219. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Pm2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7394.1 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Pm2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7019.2 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Pm2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6451.9 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pm3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1625.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pm3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1461.6 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pm3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1346.9 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pm3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1059.6 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pm3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1034.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Pm4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 328.07 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Pm4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 265.01 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Pm4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 239.87 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Pm4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 135.05 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Pm4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 130.59 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Pm4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.880000000000001 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Pm4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.35 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Pm5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46.27 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Pm5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.96 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Pm5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.46 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Pm6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.03 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-062\_Sm\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Sm + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Sm [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Sm [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Sm + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Sm [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Sm1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46876. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Sm2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7702.3 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Sm2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7318.2 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Sm2p3/2 / Cross section: (Error # 0): Threshold mismatch*



- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6707.9 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Sm3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1700.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Sm3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1531.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Sm3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1407.7 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Sm3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1112.9 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Sm3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1085.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Sm4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 342.77 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Sm4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 277.43 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Sm4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 250.06 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Sm4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 141.4 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Sm4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 136.52 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Sm4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.369999999999999 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Sm4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.75 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Sm5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 47.74 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Sm5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.79 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Sm5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26.02 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Sm6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.09 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-063\_Eu\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-063\_Eu\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Eu + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Eu$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Eu$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Eu + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Eu$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Eu1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 48568. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Eu2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8018.1 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Eu2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7624.8 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Eu2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6968.8 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Eu3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1776.9 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Eu3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1604. eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Eu3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1469.6 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Eu3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1167.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Eu3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1137.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Eu4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 357.7 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Eu4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 290.05 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Eu4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 260.3 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Eu4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 147.76 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Eu4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.44 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Eu4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.77 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Eu4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.08 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Eu5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.21 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Eu5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30.61 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Eu5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26.56 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22: e- + e- + Eu6s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.16 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-064\_Gd\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-064\_Gd\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Gd + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Gd [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Gd [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Gd + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Gd [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Gd1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50303. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Gd2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8349.799999999999 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Gd2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7947. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Gd2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7242.7 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Gd3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1864.6 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Gd3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1686.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Gd3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1541.8 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Gd3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1231.6 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Gd3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1199.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Gd4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 381.39 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Gd4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 311.3 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Gd4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 278.86 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Gd4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 162.16 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Gd4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 156.3 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Gd4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.03 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Gd4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16.2 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Gd5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 54.66 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Gd5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.83 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Gd5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30.18 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Gd5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.19 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Gd5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.85 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Gd6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.71 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

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e-065\_Tb\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-065\_Tb\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Tb + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Tb [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Tb [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Tb + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Tb [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Tb1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 52060. eV!
```



5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Tb2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8673.1 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Tb2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8260.9 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Tb2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7505.3 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Tb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1935.8 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Tb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1753.4 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Tb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1596.8 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Tb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1279. eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Tb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1244.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Tb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 388.39 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Tb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 316. eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Tb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 281.04 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Tb4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 160.59 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Tb4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 154.29 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Tb4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.39 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Tb4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.529999999999999 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Tb5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 52.17 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Tb5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.24 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Tb5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.59 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Tb6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.29 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-066\_Dy\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-066-Dy-000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Dy + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Dy [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Dy [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Dy + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Dy [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Dy1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53861. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Dy2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9012.5 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Dy2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8590.700000000001 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Dy2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7781. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Dy3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2018.2 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Dy3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1830.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Dy3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1662.1 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Dy3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1336.6 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Dy3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1299.5 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Dy4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 404.2 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Dy4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 329.38 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Dy4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 291.56 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Dy4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 167.07 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Dy4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 160.24 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Dy4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.62 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Dy4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.66 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Dy5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.67 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Dy5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.06 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Dy5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.09 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Dy6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.35 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-067\_Ho\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-067\_Ho\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ho + gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ho$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ho$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ho + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ho$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ho1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55699. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ho2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9360.200000000001 eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ho2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8928.700000000001 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ho2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8061.7 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ho3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2102.5 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ho3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1910.4 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ho3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1728.5 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ho3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1395.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ho3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1355.3 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ho4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 420.35 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ho4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 343.05 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ho4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 302.2 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ho4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 173.63 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ho4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 166.23 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ho4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.8 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ho4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.73 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ho5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55.19 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ho5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.89 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ho5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.58 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22: e- + e- + H<sub>o</sub>6s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.42 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-068\_Er\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-068\_Er\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Er + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Er [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Er [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Er + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Er [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!



4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Er1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 57574. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Er2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9716.200000000001 eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Er2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9274.799999999999 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Er2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8347.4 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Er3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2188.9 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Er3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1991.8 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Er3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1796.2 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Er3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1455. eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Er3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1412. eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Er4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 436.85 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Er4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 357.04 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Er4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 312.97 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Er4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 180.25 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Er4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 172.26 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Er4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.94 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Er4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.76 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Er5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.73 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Er5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.73 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Er5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.06 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Er6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.48 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-069\_Tm\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Tm + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Tm [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Tm [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Tm + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Tm [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Tm1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59488. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Tm2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10081. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Tm2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9629.4 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Tm2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8638.1 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Tm3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2277.4 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Tm3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2075.2 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Tm3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1865.1 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Tm3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1516. eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Tm3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1469.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Tm4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 453.73 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Tm4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 371.37 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Tm4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 323.87 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Tm4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 186.95 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Tm4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 178.33 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Tm4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.03 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Tm_{4f7/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.74 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Tm_{5s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 58.3 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Tm_{5p1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35.58 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Tm_{5p3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.54 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Tm_{6s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.55 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-070\_Yb\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-070\_Yb\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Yb + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Yb [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Yb$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Yb + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Yb$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Yb1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 61441. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Yb2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10454. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Yb2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9992.6 eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Yb2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8933.799999999999 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Yb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2368.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Yb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2160.7 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Yb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1935.2 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Yb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1578.1 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Yb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1528.5 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Yb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 471. eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Yb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 386.04 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Yb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 334.92 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Yb4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 193.73 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Yb4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 184.44 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Yb4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.09 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Yb4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.67 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Yb5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.9 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Yb5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.44 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Yb5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30.01 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22: e- + e- + Yb6s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.61 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-071\_Lu\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-071\_Lu\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Lu + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Lu [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Lu [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Lu + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Lu [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!



4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Lu1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63442. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Lu2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10845. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Lu2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10373. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Lu2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9243.200000000001 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Lu3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2470.5 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Lu3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2258. eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Lu3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2016.1 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Lu3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1650.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Lu3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1597.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Lu4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 497.85 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Lu4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 410.19 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Lu4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 355.05 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Lu4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 209.38 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Lu4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 199.32 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Lu4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18.96 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Lu4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.32 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Lu5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 66.34 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Lu5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.52 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Lu5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.22 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Lu5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.45 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Lu5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.03 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Lu6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.33 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

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e-072\_Hf\_000.endf

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- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-072\_Hf\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Hf + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Hf [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Hf [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Hf + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Hf [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Hf1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 65482. eV!
```

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + \text{Hf}2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11245. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + \text{Hf}2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10763. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + \text{Hf}2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9558.299999999999 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Hf}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2576. eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Hf}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2358.1 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Hf}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2099. eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Hf}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1725.5 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Hf}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1668.7 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Hf}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 525.6900000000001 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Hf}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 435.27 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Hf}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 375.82 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Hf}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 225.59 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Hf}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 214.71 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Hf}4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.26 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Hf}4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.4 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Hf}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 72.56 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + \text{Hf}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46.34 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + \text{Hf}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.1 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + \text{Hf}5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.75 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + \text{Hf}5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.18 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + \text{Hf}6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.86 eV!

- **xsectplotter** Warnings:

1. Misabled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-073-Ta\_000.endf

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• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-073-Ta\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Ta + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Ta [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Ta [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Ta + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Ta [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Ta1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 67565. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Ta2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11656. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ta2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11163. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ta2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9879.200000000001 eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ta3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2684.7 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ta3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2461.4 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ta3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2184.1 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ta3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1802.3 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ta3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1741.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ta4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 554.65 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ta4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 461.41 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ta4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 397.36 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ta4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 242.48 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ta4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 230.72 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ta4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.14 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ta4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.04 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ta5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78.81 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ta5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 51.15 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ta5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.89 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ta5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.01 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Ta5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.3 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Ta6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.31 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]



- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-074\_W\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + W + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + W [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + W [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + W + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + W [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + W1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 69689. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + W2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12077. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + W2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11573. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + W2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10206. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + W3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2796.5 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + W3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2567.8 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + W3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2271.2 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + W3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1881.1 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + W3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1816.2 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + W4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 584.7 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + W4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 488.61 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + W4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 419.62 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + W4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 260.05 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + W4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 247.34 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + W4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.61 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + W_{4f7/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 43.25 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + W_{5s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 85.14 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + W_{5p1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.02 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + W_{5p3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.65 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + W_{5d3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.27 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + W_{5d5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.41 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + W_{6s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.7 eV!

• xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-075\_Re\_000.endf

---

• fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-075\_Re\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Re + \gamma$  [bremsstrahlung] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Re$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Re$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Re + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Re$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Re1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 71856. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Re2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12508. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Re2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11993. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Re2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10538. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Re3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2911.6 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Re3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2677.4 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Re3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2360.5 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Re3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1961.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Re3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1892.7 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Re4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 615.83 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Re4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 516.83 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Re4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 442.59 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Re4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 278.26 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Re4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 264.54 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Re4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55.64 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Re4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 52.99 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Re5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 91.56999999999999 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Re5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.97 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Re5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.4 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Re5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.52 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Re5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.5 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Re6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.06 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-076\_Os\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-076\_Os\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Os + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Os [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Os [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Os + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Os [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Os1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 74066. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Os2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12950. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Os2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12424. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Os2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10877. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Os3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3030. eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Os3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2790.2 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Os3p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2451.7 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Os3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2044.5 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Os3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1970.9 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Os4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 648.03 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Os4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 546.0700000000001 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Os4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 466.23 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Os4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 297.08 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Os4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 282.29 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Os4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 66.20999999999999 eV!

  19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Os4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.26 eV!

  20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Os5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 98.12 eV!

  21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Os5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 66.01000000000001 eV!



22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Os5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.15 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Os5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.79 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Os5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.6 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Os6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.3900000000000001 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-077\_Ir\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-077\_Ir\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Ir + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Ir [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Ir [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Ir + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Ir [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ir1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 76314. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ir2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13396. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ir2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12859. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ir2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11214. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ir3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3145.7 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ir3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2900.2 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ir3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2539. eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ir3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2123.2 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ir3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2044.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ir4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 675.3200000000001 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ir4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 570.35 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ir4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 484.55 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ir4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 310.52 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ir4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 294.58 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ir4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 71.33 eV!

  19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ir4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.06 eV!

  20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ir5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 99.14 eV!

  21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ir5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 65.68000000000001 eV!

  22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ir5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 51.66 eV!

  23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ir5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.99 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23: e- + e- + Ir5d5/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.79 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-078\_Pt\_000.endf

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• **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-078\_Pt\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Pt + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Pt [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Pt [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Pt + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Pt [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Pt1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78615. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Pt2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13862. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Pt2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13313. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Pt2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11567. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pt3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3273.2 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pt3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3022. eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pt3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2636.9 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pt3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2212.4 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pt3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2129. eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Pt4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 712.21 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Pt4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 604.1900000000001 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Pt4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 512.04 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Pt4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 333.1 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Pt4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 315.96 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Pt4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 85.48999999999999 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Pt4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 81.87 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Pt5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 108.44 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Pt5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 73.34 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Pt5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 57.74 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Pt5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.02 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Pt5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.539999999999999 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Pt6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.07 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

---

e-079\_Au\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-079\_Au\_000.endf (Error # 0): ZAP messed up*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Au + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Au [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Au [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Au + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Au [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Au1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 80960. eV!
```

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Au2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14336. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Au2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13776. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Au2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11922. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Au3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3401.4 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Au3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3144.3 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Au3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2734. eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Au3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2300.7 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Au3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2212.2 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Au4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 747.4 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Au4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 636.28 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Au4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 537.39 eV!



16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Au4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 353.48 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Au4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 335.05 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Au4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 97.37 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Au4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 93.39 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Au5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 115.23 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Au5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 78.55 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Au5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 61.37 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Au5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.16 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Au5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.46 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Au6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.300000000000001 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-080\_Hg\_000.endf

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• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-080\_Hg\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Hg + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Hg [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Hg [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Hg + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Hg [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Hg1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 83353. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Hg2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14826. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + \text{Hg}2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14254. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + \text{Hg}2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12287. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Hg}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3536.8 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Hg}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3273.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Hg}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2836.9 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Hg}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2394.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Hg}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2300.8 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Hg}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 787.4400000000001 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Hg}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 673.17 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Hg}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 567.13 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Hg}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 378.21 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Hg}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 358.42 eV!

18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Hg}4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 113.5 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Hg}4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 109.13 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Hg}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 125.73 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + \text{Hg}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 87.34 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + \text{Hg}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.3 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + \text{Hg}5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15.98 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + \text{Hg}5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.96 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + \text{Hg}6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.550000000000001 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-081\_Tl\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Tl + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Tl [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Tl [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Tl + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Tl [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Tl1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 85798. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Tl2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15330. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Tl2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14746. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Tl2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12660. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Tl3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3678.7 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Tl3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3409.7 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Tl3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2944.6 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Tl3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2493.7 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Tl3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2393.9 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Tl4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 831.4299999999999 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Tl4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 713.97 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Tl4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 600.3200000000001 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Tl4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 406.35 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Tl4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 385.13 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Tl4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 132.95 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Tl4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 128.16 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Tl5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 139.16 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Tl5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 99.03 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Tl5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 77.95999999999999 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Tl5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22.4 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Tl5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.01 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Tl6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.36 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Tl6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.46 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Tl6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.3 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-082\_Pb\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Pb + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Pb [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Pb [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Pb + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Pb [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Pb1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 88290. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Pb2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15847. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Pb2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15251. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Pb2p3/2 / Cross section: (Error # 0): Threshold mismatch*



- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13040. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pb3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3824.3 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pb3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3549.3 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pb3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3054.6 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pb3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2594.7 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pb3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2489. eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Pb4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 876.72 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Pb4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 756.02 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Pb4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 634.3 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Pb4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 435.23 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Pb4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 412.49 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Pb4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 153.04 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Pb4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 147.81 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Pb5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 152.83 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Pb5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 110.91 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Pb5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 87.64 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Pb5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.81 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Pb5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26.03 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Pb6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15.05 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Pb6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7. eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Pb6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.29 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-083\_Bi\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Bi + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Bi [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Bi [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Bi + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Bi [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Bi1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 90832. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Bi2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16376. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Bi2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15768. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Bi2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13425. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Bi3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3973.9 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Bi3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3692.7 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Bi3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3166.9 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Bi3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2698. eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Bi3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2586. eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Bi4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 923.4299999999999 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Bi4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 799.4299999999999 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Bi4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 669.16 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Bi4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 464.95 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Bi4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 440.61 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Bi4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 173.87 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Bi4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 168.17 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Bi5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 166.86 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Bi5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 123.12 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Bi5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 97.45999999999999 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Bi5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35.37 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Bi5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.17 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Bi6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17.69 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Bi6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.6 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Bi6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.35 eV!

• xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-084\_Po\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Po + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Po [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Po [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Po + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Po [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Po1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 93424. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Po2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16918. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Po2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16297. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Po2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13817. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Po3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4127.6 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Po3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3840.2 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Po3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3281.5 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Po3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2803.5 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Po3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2685.1 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Po4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 971.64 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Po4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 844.3 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Po4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 704.96 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Po4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 495.56 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Po4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 469.54 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Po4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 195.5 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Po4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 189.3 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Po5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 181.34 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Po5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 135.73 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Po5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 107.52 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Po5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 42.16 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Po5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.51 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Po6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.33 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Po6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.25 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Po6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.44 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]



- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-085\_At\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + At + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + At [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + At [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + At + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + At [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + At1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 96068. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + At2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17473. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + At2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16840. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + At2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14215. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + At3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4285.5 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + At3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3991.8 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + At3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3398.5 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + At3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2911.4 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + At3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2786.2 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + At4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1021.4 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + At4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 890.65 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + At4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 741.71 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + At4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 527.08 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + At4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 499.28 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + At4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 217.93 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + At4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 211.2 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + At5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 196.27 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + At5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 148.78 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + At5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 117.82 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + At5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 49.2 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + At5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.06 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + At6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.01 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + At6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.94 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + At6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.539999999999999 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-086\_Rn\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Rn + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Rn [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Rn [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Rn + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Rn [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Rn1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 98764. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Rn2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18042. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Rn2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17396. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Rn2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14619. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Rn3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4447.7 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Rn3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4147.6 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Rn3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3517.9 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Rn3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3021.6 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Rn3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2889.3 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Rn4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1072.7 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Rn4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 938.51 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Rn4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 779.39 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Rn4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 559.5 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Rn4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 529.8200000000001 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Rn4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 241.16 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Rn4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 233.87 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Rn5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 211.69 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Rn5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 162.29 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Rn5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 128.37 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Rn5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 56.49 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Rn5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 51.84 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Rn6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.72 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Rn6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.69 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Rn6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.640000000000001 eV!

• xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-087\_Fr\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Fr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Fr [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Fr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Fr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Fr [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Fr1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 101520. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Fr2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18630. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Fr2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17971. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Fr2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15034. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Fr3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4619.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Fr3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4312.5 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Fr3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3644.5 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Fr3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3138.9 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Fr3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2999.2 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Fr4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1130.3 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Fr4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 992.6900000000001 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Fr4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 822.8 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Fr4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 597.6 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Fr4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 565.95 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Fr4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 269.95 eV!



19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Fr}4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 262.07 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Fr}5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 232.34 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + \text{Fr}5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 181. eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + \text{Fr}5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 143.91 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + \text{Fr}5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 68.73 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + \text{Fr}5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.52 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + \text{Fr}6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.64 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + \text{Fr}6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19.28 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + \text{Fr}6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.14 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + \text{Fr}7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3.8 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

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e-088\_Ra\_000.endf

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• fudge-4.0 Warnings:

1. Mislabled emitted particle

*Reading ENDF file: ../e-088\_Ra\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message

*reaction label 1: e- + Ra + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message

*reaction label 2: e- + Ra [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree

*reaction label 0: e- + Ra [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree

*reaction label 1: e- + Ra + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree

*reaction label 2: e- + Ra [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree

*reaction label 3: e- + e- + Ra1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 104320. eV!

5. Calculated and tabulated thresholds don't agree

*reaction label 4: e- + e- + Ra2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19232. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ra2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18560. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ra2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15456. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ra3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4795.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ra3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4482. eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ra3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3773.7 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ra3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3258.7 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ra3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3111.3 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ra4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1189.7 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ra4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1048.6 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ra4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 867.3099999999999 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ra4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 636.77 eV!

17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ra4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 603.0599999999999 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ra4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 299.7 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ra4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 291.19 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ra5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 253.63 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ra5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 200.32 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ra5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 159.83 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ra5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 81.31999999999999 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Ra5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 75.52 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Ra6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 39.54 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Ra6p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.88 eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Ra6p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18.62 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27: e- + e- + Ra7s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.73 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-089\_Ac\_000.endf

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• **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-089\_Ac\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ac + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ac [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ac [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ac + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ac [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Ac1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 107190. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Ac2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19848. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Ac2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19163. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Ac2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15883. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ac3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4974.3 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ac3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4654.7 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ac3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3903.9 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ac3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3379.6 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ac3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3224.1 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ac4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1249.5 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ac4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1104.8 eV!

15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ac4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 911.4400000000001 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ac4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 675.51 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ac4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 639.62 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ac4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 328.9 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ac4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 319.74 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ac5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 274.1 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ac5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 218.79 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ac5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 174.66 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ac5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 92.81999999999999 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Ac5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 86.38 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Ac6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 45.17 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + \text{Ac6p1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29.31 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + \text{Ac6p3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21.95 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + \text{Ac6d3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.49 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + \text{Ac6d5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4. eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + \text{Ac7s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.41 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-090\_Th\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-090\_Th\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Th} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Th [excitation]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data



- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Th [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Th + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Th [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Th1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 110110. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Th2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20478. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Th2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19780. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Th2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16315. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Th3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5157.9 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Th3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4831.6 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Th3p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4036.2 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10: e- + e- + Th3d3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3502.4 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Th3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3338.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Th4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1310.6 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Th4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1162.3 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Th4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 956.16 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Th4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 714.8099999999999 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Th4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 676.64 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Th4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 358.55 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Th4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 348.69 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Th5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 294.76 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Th5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 237.43 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Th5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 189.41 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Th5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 104.23 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Th5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 97.11 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Th6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.55 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Th6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.52 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Th6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.01 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Th6d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.62 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Th6d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.98 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Th7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.97 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-091\_Pa\_000.endf

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- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-091\_Pa\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Pa + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Pa [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Pa [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Pa + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Pa [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Pa1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 113080. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Pa2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21113. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Pa2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20402. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Pa2p3/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16743. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pa3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5334.9 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pa3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5001.8 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pa3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4159.4 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pa3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3616.1 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pa3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3443.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Pa4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1362.1 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Pa4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1210.1 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Pa4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 990.5700000000001 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Pa4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 743.75 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Pa4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 703.21 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Pa4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 377.63 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Pa4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 367.04 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Pa5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 305.17 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Pa5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 245.89 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Pa5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 194.07 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Pa5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 106.08 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Pa5d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 98.40000000000001 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Pa5f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.64 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Pa5f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.8 eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Pa6s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 50.01 eV!
28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Pa6p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.61 eV!
29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Pa6p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.82 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + \text{Pa6d3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.71 eV!

31. Calculated and tabulated thresholds don't agree  
*reaction label 30:  $e^- + e^- + \text{Pa6d5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.13 eV!

32. Calculated and tabulated thresholds don't agree  
*reaction label 31:  $e^- + e^- + \text{Pa7s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.67 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-092\_U\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-092\_U\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + U + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + U [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + U [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + U + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + U$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + U1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 116110. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + U2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21768. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + U2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21044. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + U2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17182. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + U3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5521.3 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + U3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5181.5 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + U3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4289.6 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + U3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3736.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + U3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3555.2 eV!



13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + U_4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1419.9 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + U_4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1264.2 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + U_4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1030.5 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + U_4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 778.1799999999999 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + U_4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 735.14 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + U_4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 402.09 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + U_4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 390.75 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + U_5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 320.65 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + U_5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 259.38 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + U_5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 203.39 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + U_5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 112.35 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + U5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 104.02 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + U5f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.91 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + U5f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.95 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + U6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 52.23 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + U6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 34.09 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + U6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.57 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + U6d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.74 eV!

31. Calculated and tabulated thresholds don't agree  
*reaction label 30:  $e^- + e^- + U6d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.13 eV!

32. Calculated and tabulated thresholds don't agree  
*reaction label 31:  $e^- + e^- + U7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.78 eV!

- **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-093\_Np\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Np + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Np [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Np [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Np + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Np [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Np1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1.192e5 eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Np2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22440. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Np2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 21702. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Np2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 17626. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + \text{Np}3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5712.2 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + \text{Np}3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5365.5 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + \text{Np}3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4421.6 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + \text{Np}3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3859.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + \text{Np}3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3668.1 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Np}4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1478.9 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Np}4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1319.5 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Np}4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1070.8 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Np}4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 812.9400000000001 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Np}4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 767.29 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Np}4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 426.75 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Np4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 414.6 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Np5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 336.25 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Np5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 272.95 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Np5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 212.56 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Np5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 118.48 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Np5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 109.47 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Np5f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.12 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Np5f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.029999999999999 eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Np6s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 54.39 eV!
28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Np6p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35.52 eV!
29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Np6p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.25 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + \text{Np}6d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.75 eV!

31. Calculated and tabulated thresholds don't agree  
*reaction label 30:  $e^- + e^- + \text{Np}6d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.11 eV!

32. Calculated and tabulated thresholds don't agree  
*reaction label 31:  $e^- + e^- + \text{Np}7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.88 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-094\_Pu\_000.endf

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- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-094\_Pu\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + \text{Pu} + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + \text{Pu [excitation]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + \text{Pu [large angle Coulomb scattering]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Pu + \gamma$  [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Pu$  [excitation] / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Pu1s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 122350. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Pu2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23122. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Pu2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22371. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Pu2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18071. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Pu3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5902.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Pu3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5548.5 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Pu3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4549.9 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Pu3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3977.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Pu3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3776.9 eV!

13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + \text{Pu}_{4s1/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1533.7 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + \text{Pu}_{4p1/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1370.5 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + \text{Pu}_{4p3/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1106. eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + \text{Pu}_{4d3/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 842.55 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + \text{Pu}_{4d5/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 794.17 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + \text{Pu}_{4f5/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 446.08 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + \text{Pu}_{4f7/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 433.09 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + \text{Pu}_{5s1/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 346.64 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + \text{Pu}_{5p1/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 281.33 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + \text{Pu}_{5p3/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 216.42 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + \text{Pu}_{5d3/2}$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 119.5 eV!



24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + \text{Pu5d5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 109.85 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + \text{Pu5f5/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7.4 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + \text{Pu5f7/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.25 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + \text{Pu6s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.12 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + \text{Pu6p1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.92 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + \text{Pu6p3/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.42 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + \text{Pu7s1/2}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.42 eV!

• **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]

---

e-095\_Am\_000.endf

---

• **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-095\_Am\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Am + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Am [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Am [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Am + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Am [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Am1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 125570. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Am2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23827. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Am2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23062. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Am2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18527. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Am3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6102.1 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Am3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5741.6 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Am3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4685.5 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Am3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4103.6 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Am3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3892.5 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Am4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1595.2 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Am4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1428.2 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Am4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1147. eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Am4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 877.9 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Am4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 826.6799999999999 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Am4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 471.03 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Am4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 457.17 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Am5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 362.44 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Am5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 295.06 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Am5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 225.25 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Am5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 125.29 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Am5d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 114.9 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Am5f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8.289999999999999 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Am5f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7. eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Am6s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 55.06 eV!
28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Am6p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 35.14 eV!
29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Am6p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23.89 eV!
30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Am7s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.49 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

---

e-096\_Cm\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-096\_Cm\_000.endf (Error # 0): ZAP messed up*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Cm + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Cm [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Cm [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Cm + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Cm [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Cm1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 128860. eV!
```

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Cm2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24554. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cm2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 23776. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cm2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18994. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cm3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6313.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cm3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5945.6 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Cm3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4829. eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Cm3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4237.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Cm3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4015.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Cm4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1664.1 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Cm4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1493.2 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Cm4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1194.4 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Cm4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 919.64 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Cm4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 865.4400000000001 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Cm4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 502.25 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Cm4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 487.47 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Cm5s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 384.3 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Cm5p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 314.8 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Cm5p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 239.65 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Cm5d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 136.46 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Cm5d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 125.23 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Cm5f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.48 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Cm5f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.95 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Cm6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.69 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Cm6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 39.64 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Cm6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27. eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Cm6d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.65 eV!

31. Calculated and tabulated thresholds don't agree  
*reaction label 30:  $e^- + e^- + Cm6d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3.93 eV!

32. Calculated and tabulated thresholds don't agree  
*reaction label 31:  $e^- + e^- + Cm7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.18 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

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e-097\_Bk\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabeled emitted particle  
*Reading ENDF file: ../e-097\_Bk\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Bk + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data



3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Bk [excitation] / Product: e- (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Bk [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Bk + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Bk [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Bk1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 132210. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Bk2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25294. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Bk2p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24503. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Bk2p3/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19462. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7: e- + e- + Bk3s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6523.3 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8: e- + e- + Bk3p1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6148.8 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9: e- + e- + Bk3p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4968.6 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Bk3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4366.9 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Bk3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4134.3 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Bk4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1728.8 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Bk4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1554. eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Bk4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1236.6 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Bk4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 956.12 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Bk4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 898.8200000000001 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Bk4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 528.02 eV!

  19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Bk4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 512.27 eV!

  20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Bk5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 400.87 eV!

  21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Bk5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 329.26 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Bk5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 248.62 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Bk5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.39 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Bk5d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 130.35 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Bk5f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14.53 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Bk5f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.84 eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Bk6s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 62.79 eV!
28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Bk6p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.01 eV!
29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Bk6p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.51 eV!
30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Bk6d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.6 eV!
31. Calculated and tabulated thresholds don't agree  
*reaction label 30:  $e^- + e^- + Bk6d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3.85 eV!
32. Calculated and tabulated thresholds don't agree  
*reaction label 31:  $e^- + e^- + Bk7s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.28 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
... [4 more lines]
```

---

e-098\_Cf\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-098\_Cf\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Cf + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
```

```
WARNING: Checking not yet implemented for energyLoss type data
```

3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Cf [excitation] / Product: e- (Error # 0): Generic unimp (c)*

```
WARNING: Checking not yet implemented for energyLoss type data
```

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Cf [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Cf + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Cf [excitation] / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
```

4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Cf1s1/2 / Cross section: (Error # 0): Threshold mismatch*

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 135630. eV!
```

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Cf2s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26047. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Cf2p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25242. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Cf2p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19929. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Cf3s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6732.5 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Cf3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6350.9 eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Cf3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5103.8 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Cf3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4492.2 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Cf3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4248.1 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Cf4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1788.7 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Cf4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1609.9 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Cf4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1272.9 eV!

16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Cf4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 986.74 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Cf4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 926.2 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Cf4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 547.73 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Cf4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 530.98 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Cf5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 411.58 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Cf5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 337.87 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Cf5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 251.58 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Cf5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.47 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Cf5d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 129.66 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Cf5f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.78 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Cf5f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.02 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Cf6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 60.88 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Cf6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.79 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Cf6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.1 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Cf7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.71 eV!

- **xsectplotter** Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

---

e-099\_Es\_000.endf

---

- **fudge-4.0** Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-099\_Es\_000.endf (Error # 0): ZAP messed up*
2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Es + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Es$  [excitation] / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

- **fudge-4.0** Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Es$  [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Es + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Es$  [excitation] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Es1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 139110. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Es2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26824. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Es2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26007. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Es2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20409. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Es3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6953.1 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Es3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6564.6 eV!

10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Es3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5247.2 eV!

11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Es3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4625.5 eV!

12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Es3d5/2$  / Cross section: (Error # 0): Threshold mismatch*



- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4369.6 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Es4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1856.3 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Es4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1673.6 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Es4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1315.9 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Es4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1024. eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Es4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 960.0700000000001 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Es4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 573.9299999999999 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Es4f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 556.13 eV!
20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Es5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 428.63 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Es5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 352.76 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Es5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 260.36 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Es5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 148.17 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Es5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 134.48 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Es5f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.54 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Es5f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.609999999999999 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Es6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 62.85 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Es6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40.02 eV!

29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Es6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.44 eV!

30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Es7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.78 eV!

- xsectplotter Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]

---

e-100\_Fm\_000.endf

---

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-100\_Fm\_000.endf (Error # 0): ZAP messed up*

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message  
*reaction label 1:  $e^- + Fm + \text{gamma [bremsstrahlung]}$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message  
*reaction label 2:  $e^- + Fm [\text{excitation}]$  / Product:  $e^-$  (Error # 0): Generic unimp (c)*

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0:  $e^- + Fm [\text{large angle Coulomb scattering}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree  
*reaction label 1:  $e^- + Fm + \text{gamma [bremsstrahlung]}$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree  
*reaction label 2:  $e^- + Fm [\text{excitation}]$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree  
*reaction label 3:  $e^- + e^- + Fm1s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142680. eV!

5. Calculated and tabulated thresholds don't agree  
*reaction label 4:  $e^- + e^- + Fm2s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27622. eV!

6. Calculated and tabulated thresholds don't agree  
*reaction label 5:  $e^- + e^- + Fm2p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 26792. eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 6:  $e^- + e^- + Fm2p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20894. eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Fm3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7179.7 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Fm3p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6784. eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Fm3p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5392.6 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Fm3d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4760.8 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Fm3d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4492.7 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Fm4s1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1925.8 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Fm4p1/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1739. eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Fm4p3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1359.6 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Fm4d3/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1061.8 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Fm4d5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 994.36 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Fm4f5/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 600.52 eV!
19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Fm4f7/2$  / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 581.62 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Fm5s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 446.11 eV!
21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Fm5p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 368.06 eV!
22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Fm5p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 269.17 eV!
23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Fm5d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 153.89 eV!
24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Fm5d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 139.29 eV!
25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Fm5f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.29 eV!
26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Fm5f7/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.18 eV!
27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Fm6s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 64.84999999999999 eV!
28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Fm6p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 41.27 eV!
29. Calculated and tabulated thresholds don't agree  
*reaction label 28:  $e^- + e^- + Fm6p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 25.77 eV!
30. Calculated and tabulated thresholds don't agree  
*reaction label 29:  $e^- + e^- + Fm7s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.85 eV!

- `xsectplotter` Warnings:

1. Mislabelled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
```

```
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]
```